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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/752,095	12/30/2000	Govindan Nair	42390P9928	8255
8791 7590 07/17/2007 BLAKELY SOKOLOFF TAYLOR & ZAFMAN 1279 OAKMEAD PARKWAY SUNNYVALE, CA 94085-4040			EXAMINER KOROBOV, VITALI A	
			ART UNIT 2155	PAPER NUMBER
			MAIL DATE 07/17/2007	DELIVERY MODE PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary

Application No.

09/752,095

Applicant(s)

NAIR, GOVINDAN

Examiner

Vitali Korobov

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 10 April 2007.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-6,8-13 and 15-20 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-6,8-13 and 15-20 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO/SB/08)
Paper No(s)/Mail Date _____
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____
- 5) ☐ Notice of Informal Patent Application
- 6) ☐ Other: _____

Response to Amendment

1. This Office Action is in response to the amendment filed on 04/10/2007. Independent claims 1, 8 and 15 have been amended. No claims have been added or canceled. Accordingly, claims 1-6, 8-13 and 15-20 are currently pending and have been examined in this Office Action.

Claim Rejections - 35 USC § 112

2. As the result of the amendment, the rejection of claims 1-6 is hereby withdrawn.

Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

3. Claims 1-6, 8-13, and 15-20 are rejected under 35 U.S.C. 102(b) as being anticipated by the U. S. Patent No. 6,009,463, issued to Brandt et al., hereinafter Brandt.

Regarding claim 1, Brandt teaches a method, comprising: receiving a data frame at a first communications protocol software module (1:49-54); allocating a memory buffer in which to store at least some portion of the data frame (3:44-47); the memory buffer pointed to by a non-unique pointer associated with a first communication protocol

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software module (CPSM) (3:48-51); wherein the memory buffer is not unique to any protocol software module in any network layer but is commonly shared and accessible to multiple different protocol software modules in different network layers, each of the multiple different protocol software modules may include at least one of being developed by a different vendor, having different buffer format or having different buffer lengths (3:40-43 - DSS operates at the Application Layer services of the OSI while the Network Provider implements the Session, Transport, and Network Layers. 3:48-64 - DSS and Network Provider share the buffer via passing image pointers rather than actually moving blocks of data); storing the at least some portion of the data frame in the memory buffer (3:44-47); accessing the at least some portion of the data frame in the memory buffer pointed to by the non-unique pointer associated with the first CPSM to process the data frame by the first CPSM (3:44-47 - the header is parsed); under the control of a buffer manager software module (11:41-49 - MCP), transferring the non-unique pointer associated with the first CPSM from the first CPSM to associate with a second CPMS and thus transferring control of processing the data frame in the memory buffer from the first CPSM to the second CPSM (11:31-35 and 11:55-61 - transferring the pointers); and accessing the at least some portion of data frame in the memory buffer pointed to by the non-unique pointer associated with the second CPSM to process the data frame by the second CPSM (11:1-11, 5:66-6:13. The limitations of first and second CPSM are met by Brandt's teachings of respective software modules running at DSS and Network Provider).

Regarding claim 2, Brandt teaches the method of claim 1, wherein allocating a memory buffer in which to store the at least some portion of the data frame comprises allocating a memory buffer from a pool of available memory buffers in which to store the at least some portion of the data frame (Fig. 1 - input and output buffer pools).

Regarding claim 3, Brandt teaches the method of claim 1, wherein accessing the data frame in the memory buffer pointed to by the pointer associated with the first CPSM to process the data frame, comprises providing a first pointer to a beginning of the memory buffer and a second pointer to an ending of the memory buffer (23:40-60 - start offset and total length of the message).

Regarding claim 4, Brandt teaches the method of claim 3, further providing a length of the memory buffer to the first communications protocol module (23:40-60 - total length of the message).

Regarding claim 5, Brandt teaches the method of claim 1, further comprising returning the memory buffer to the pool of available memory buffers when processing of the data frame is completed (23:52-55 - re-use of the buffer).

Regarding claim 6, Brandt teaches the method the method of claim 5, wherein returning the memory buffer to the pool of available memory buffers when processing of the data frame is completed, comprises inserting the pointer to the memory buffer in to a linked list of available memory buffers (Fig. 4B - de-allocation of buffers).

Claims 8-13 are rejected in view of the above rejection of claims 1-6. Claims 8-13 are essentially the same as claims 1-6, except that they set forth the invention as an apparatus rather than a method, as do claims 1-6.

Claims 15-20 are rejected in view of the above rejection of claims 1-6. Claims 15-20 are essentially the same as claims 1-6, except that they set forth the invention as an article of manufacture rather than a method, as do claims 1-6.

4. **Examiner's note:** Examiner has cited particular columns and line numbers in the references as applied to the claims above for the convenience of the applicant. Although the specified citations are representative of the teachings of the art and are applied to the specific limitations within the individual claim, other passages and figures may apply as well. It is respectfully requested from the applicant in preparing responses, to fully consider the references in entirety as potentially teaching all or part of the claimed invention, as well as the context of the passage as taught by the prior art or disclosed by the Examiner.

Response to Arguments

5. Applicant's arguments filed 04/10/2007 have been fully considered but they are not persuasive.

The Applicant argues – *"In contrast, Applicant's disclosure concerns dealing with a memory buffer or a buffer pool that is commonly shared by different layers (see Figure 1, Buffer MGR 114). In other words, Applicant describes a buffer scheme that is common to all different layers, which is not the same as Brandt's disclosure of having a buffer scheme for each individual layer."*

The Examiner respectfully disagrees. At least in 3:40-64, Brandt discloses that "The DSS operates at the Application Layer services of the OSI (Open Systems Interconnection Standards) while the Network Provider implements the Session, Transport, and Network Layers." Brandt further discloses that the Network Protocol Stack of the Network Provider shares the buffer space via temporary transfer of ownership of the buffer space to the DSS via "image pointers", eliminating the need to

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actually move the buffer data between the Session, Transport, and Network Layers of the Network Provider and the Application Layers of the DSS, disclosing thereby a buffer scheme that is common to different layers, as claimed by the Applicant.

The Applicant further argues - *"Furthermore, Applicant's claim specifically describes this common memory buffer allows information to be shared by protocol software modules in different layers developed by different vendors or having different buffer formats, "... the memory buffer is not unique to any protocol software module in any network layer and is commonly shared and accessible to multiple different protocol software modules in different network layers, each of the different protocol software module may include at least one of being developed by a different vendor, having different buffer format or having different buffer lengths..." Support can be found in at least page 8 lines 7-20."*

The Examiner respectfully submits that the claim only states that each of the different protocol software module may include at least one of being developed by a different vendor, having different buffer format or having different buffer lengths, without stating that they actually do. Therefore, the argument is moot.

The Applicant argues – *"Lastly, the information is only stored in one location and commonly accessed by all layers, so the information need not be "borrowed and returned" as described in Brandt where buffers are separately residing in different layers."*

The Examiner respectfully refers the Applicant to 3:40-64 and to 13:13-43, where Brandt discloses that not the actual data, as was done under the earlier methodology,

but only buffer pointers are passed between the OSI layers of the Network Provider and the Application Layers of the DSS, identical to the manner claimed by the Applicant.

Therefore, the Office respectfully maintains the rejection and makes it final.

Conclusion

6. **THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Vitali Korobov whose telephone number is 571-272-7506. The examiner can normally be reached on Mon-Friday 8a.m. - 4:30p.m..


If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Saleh Najjar can be reached on (571)272-4006. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Vitali Korobov
Examiner
Art Unit 2155

VAK
07/07/2007


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SUPERVISORY PATENT EXAMINER